Application No.: 10/562,686 Docket No.: 4590-467

## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-8 (Canceled).

## (Currently Amended) An image sensor comprising:

a matrix of rows and columns of photosensitive dots, made on a chip of general square or rectangular shape with beveled corners,

a reading register placed on the chip at the bottom of the matrix, said register having a horizontal part and two oblique parts running respectively along a horizontal part of the chip and two beveled corners of the chip and said matrix having columns terminating on the reading register on the horizontal part and columns terminating on the register on the two beveled parts of the register, being bent so as to run alongside the beveled corners of the chip forming a horizontal part and two oblique parts, said register-includes—said register including an input configured to store in parallel signals representative of exposure of pixels to light, and an output configured to serially output corresponding signals, and

a structure for directing photosensitive charges of columns terminating opposite the beveled corners to register stages situated in the oblique parts alongside the beveled corners, said structure comprising insulating zones extending between adjacent columns of the matrix, parallel to said columns, wherein insulating zones which terminate on a beveled part of the register have terminal portions bent towards said beveled part.

## 10. (Canceled).

Application No.: 10/562,686 Docket No.: 4590-467

11. (Previously Presented) The image sensor as claimed in claim 9, wherein each row of the matrix comprises several electrodes extending in a linear strip and in that the ends of certain of these electrodes are bent so that, inside a column terminating on an oblique part of the register, the last electrode of the last row of this column extends parallel to the beveled corner, the electrodes which precede this electrode having shapes intermediate between an oblique strip shape and a horizontal strip shape so as to facilitate the transmission of charges under these electrodes from the column to the register.

- 12. (Previously Presented) The image sensor as claimed in claim 11, wherein the last electrode of the last row of the matrix extends continuously along the horizontal part and the oblique parts of the register.
- 13. (Previously Presented) The image sensor as claimed in claim 9, wherein there are provided several metallic conductors extending along the register and coming into contact locally with the various charge transfer electrodes constituting the rows of the matrix.
- 14. (Previously Presented) The image sensor as claimed in claim 9, wherein the reading register possesses a central output, the reading register being divided into two half-registers operating in opposite senses so as to bring the charges from the left half of the matrix to the right and the charges from the right half to the left.
- 15. (Previously Presented) The image sensor as claimed in claim 9, wherein the chip is covered with a scintillator.
- 16. (Previously Presented) An intraoral dental radiological image capture device, comprising a sensor as claimed in claim 15.

## 17. (New) An image sensor comprising:

a matrix of rows and columns of photosensitive dots, made on a chip of general square or rectangular shape with beveled corners,

a reading register placed on the chip at the bottom of the matrix, said register being bent so as to run alongside the beveled corners of the chip forming a horizontal part and two oblique parts, said register includes an input configured to store in parallel signals representative of exposure of pixels to light, and an output configured to serially output corresponding signals, and

a structure for directing photosensitive charges of columns terminating opposite the beveled corners to register stages situated in the oblique parts alongside the beveled corners:

wherein each row of the matrix comprises several electrodes extending in a linear strip and in that the ends of certain of these electrodes are bent so that, inside a column terminating on an oblique part of the register, the last electrode of the last row of this column extends parallel to the beveled corner, the electrodes which precede this electrode having shapes intermediate between an oblique strip shape and a horizontal strip shape so as to facilitate the transmission of charges under these electrodes from the column to the register.